



#15/c 2815
Docket No.: N.C. 79,812/02
12/23/02
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Summers et al.
Appl. No. : 09/614,682 ✓
Filed : July 12, 2000
Title : CMOS DEVICES HARDENED AGAINST TOTAL DOSE
RADIATION EFFECTS
Art Unit : 2815
Examiner : Joseph H. Nguyen

Honorable Assistant Commissioner for Patents
Washington, DC 20231

AMENDMENT

Sir:

In response to the Office Action mailed on September 16, 2002, the period for Response being until December 16, 2002, please amend the above-identified application as follows:

In the Drawings:

✓
New Fig. 1 is attached hereto.

In the Specification:

Please replace the paragraph beginning at page 5, line 6, with the following rewritten paragraph:

C¹
-- The negative bias source 22 is adapted for applying a steady negative back bias to the substrate at a voltage that mitigates total dose radiation failures. The device operates by mitigating leakage currents about the device, while allowing the device to operate within its operational range, i.e., without changing the threshold voltage of the device to a degree that will cause the device to operate poorly. Typically, this negative bias will be between about -3 V and about -0.5 V, relative to the source. The inventors have recognized that in the current generation